

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA
FIFTH APPELLATE DISTRICT

ANTELOPE VALLEY GROUNDWATER CASES*

F082492

LOS ANGELES COUNTY WATERWORKS
DISTRICT NO. 40 et al.,

(JCCP No. 4408)

Cross-complainants and Respondents,

v.

OPINION

CHARLES TAPIA, Individually and as Trustee,
etc., et al.,

Cross-defendants and Appellants;

ANTELOPE VALLEY–EAST KERN WATER
AGENCY,

Cross-defendant, Cross-complainant and
Respondent;

U.S. BORAX INC. et al.,

Cross-defendants and Respondents.

**Los Angeles County Waterworks District No. 40 v. Diamond Farming Co.* (Super. Ct. Los Angeles County, No. BC325201); *Los Angeles County Waterworks District No. 40 v. Diamond Farming Co.* (Super. Ct. Kern County, No. S-1500-CV254348); *Wm. Bolthouse Farms, Inc. v. City of Lancaster* (Super. Ct. Riverside County, No. RIC353840); *Diamond Farming Co. v. City of Lancaster* (Super. Ct. Riverside County, No. RIC344436); *Diamond Farming Co. v. Palmdale Water Dist.* (Super. Ct. Riverside County, No. RIC344668); *Willis v. Los Angeles County Waterworks District No. 40* (Super. Ct. Los Angeles County, No. BC364553); *Wood v. Los Angeles County Waterworks District No. 40* (Super. Ct. Los Angeles County, No. BC391869).

APPEAL from a judgment of the Superior Court of Los Angeles County. Jack Komar, Judge.[†]

Law Offices of Robert H. Brumfield and Robert H. Brumfield III for Cross-defendants and Appellants.

Mary Wickham, County Counsel, Warren R. Wellen, Deputy County Counsel; Best Best & Krieger, Eric L. Garner, Jeffrey V. Dunn, Wendy Y. Wang; Lagerlof, Thomas Bunn III; Murphy & Evertz, Douglas J. Evertz; Olivarez Madruga Lemieux O'Neill, W. Keith Lemieux; and Lynne Patrice McGhee for Cross-complainants and Respondents.

Richards, Watson & Gershon, James L. Markman, and B. Tilden Kim for Cross-defendant, Cross-complainant and Respondent.

Venable, William M. Sloan, Tyler G. Welti; Ellison, Schneider, Harris & Donlan, Christopher M. Sanders; Kuhs & Parker, Robert G. Kuhs, Bernard C. Barmann, Jr.; Kronick, Moskovitz, Tiedemann & Girard, Eric N. Robinson, Stanley C. Powell; Michael N. Feuer, Los Angeles City Attorney, Joseph Brajevich, Raymond Ilgunas; Law Office of LeBeau Thelen, Bob H. Joyce; Zimmer & Melton and Richard Zimmer for Cross-defendants and Respondents.

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In 1999, the first lawsuits were filed in what ultimately evolved into this proceeding known as the Antelope Valley Groundwater Cases (AVGC). The AVGC proceeding litigated whether the water supply from natural and imported sources, which replenished an alluvial basin from which numerous parties pumped water, was inadequate to meet the competing annual demands of those water producers, thereby creating an

[†]Retired Judge of the Santa Clara Superior Court, assigned by the Chief Justice pursuant to article VI, section 6 of the California Constitution.

“overdraft” condition.¹ A number of the parties asserted that, without a comprehensive adjudication of all competing parties’ rights to produce water from the aquifer, and a physical solution to regulate future pumping to protect the aquifer, this continuing overdraft would negatively impact the health of the aquifer.

One of the competing parties, appellant Charles Tapia, individually and as trustee of a trust (jointly, Tapia), claimed he owned land overlying the aquifer. Tapia first appeared in the late stages of the AVGC litigation to interpose a claim that he was entitled to draw 534.5 acre-feet per year (afy) from the limited supply of water available in the aquifer, joining the thousands of entities and people who asserted competing claims to draw from the limited available water.

Before Tapia’s first appearance, the Judicial Council had ordered all lawsuits consolidated into this single adjudication proceeding, and the trial court had embarked on an 11-year process in which it, seriatim, (1) defined the geographical boundaries of the Antelope Valley Adjudication Area (AVAA) to determine which parties would be necessary parties to any global adjudication of water rights, (2) concluded the aquifer encompassed within the AVAA boundaries (the AVAA basin) was functionally a single

¹In the context of an aquifer, “overdraft” occurs when the average annual withdrawals or diversions from the aquifer exceed the “safe yield” of a groundwater supply and would lead to ultimate depletion of the available supply. (*Jordan v. City of Santa Barbara* (1996) 46 Cal.App.4th 1245, 1272.) The “safe yield” is “‘the maximum quantity of water which can be withdrawn annually from a ground water supply under a given set of conditions without causing an undesirable result.’ The phrase ‘undesirable result’ is understood to refer to a gradual lowering of the ground water levels resulting eventually in depletion of the supply.” (*City of Los Angeles v. City of San Fernando* (1975) 14 Cal.3d 199, 278 (*San Fernando*), disapproved on other grounds in *City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 1248 (*Barstow*).) In essence, safe yield examines the available groundwater recharge from replenishing sources such as native precipitation and associated runoff, along with return flows from such sources, less losses incurred through natural groundwater depletions such as subsurface outflow or evaporative losses. (*San Fernando, supra*, at pp. 278–279; see *Tehachapi-Cummings County Water Dist. v. Armstrong* (1975) 49 Cal.App.3d 992, 996, fn. 3 (*Tehachapi-Cummings*) [“Natural ‘safe yield’ is the maximum quantity of ground water, not in excess of the long-term, average, natural replenishment (e.g., rainfall and runoff), which may be extracted annually without eventual depletion of the basin”].)

aquifer, and (3) found the AVAA basin was in a state of chronic overdraft because extractions exceeded the basin-wide annual safe yield by a considerable margin.

The next phase (“Phase 4”), which also occurred before Tapia’s first appearance, quantified how much water was currently being pumped by the participating competing water rights claimants. The court ultimately determined the annual “baseline” amounts actually extracted by the largest of the competing parties with claims to water from the aquifer. These annual extractions confirmed the amounts annually extracted were substantially in excess of the safe yield for the AVAA basin.

The next phase, which contemplated trial of the issues of federal reserved water rights and imported water return flow rights, was interrupted by settlement discussions. These discussions ultimately produced an agreement among the vast majority of parties in which they settled their competing groundwater rights claims and agreed to support the contours of a proposed plan (the “Physical Solution”) designed to bring the AVAA basin into hydrological balance. The Physical Solution included limits on pumping that would bring total annual extractions from the aquifer into balance with the available “native safe yield” (sometimes, NSY). Accordingly, among the provisions of the proposed Physical Solution was an agreement by most of those who had demonstrated their extant pumping from the aquifer during the Phase 4 baseline period, as follows: (1) to substantially reduce their water extractions to a level that would match their assigned allocation of water from the NSY, and (2) to pay for imported water for any extractions above their assigned allocation.

Tapia was not among the settling parties. Accordingly, before considering whether to approve the Physical Solution (including the proposed global allocation of water from the NSY) for the AVAA basin, the court conducted a separate trial on Tapia’s unsettled claims and defenses, including (1) the extent to which various public water suppliers (sometimes, PWS) had obtained prescriptive rights in the NSY as to Tapia and others, and (2) whether Tapia had demonstrated his entitlement to an allocation from the

NSY based on Tapia's showing of how much he pumped for reasonable and beneficial uses on his land. The court found the PWS had established prescriptive rights in the NSY as to Tapia, and that Tapia had not adequately shown a basis for his requested allocation of water under the Physical Solution.

In addition to resolving Tapia's unsettled claims, the court held a trial on the rationale for and efficacy of the proposed Physical Solution. The court found the proposed Physical Solution was reasonable, fair and beneficial as to all parties, and served the public interest, and approved the Physical Solution.

Tapia's claims on appeal are murky, but it appears Tapia interposes three claims: (1) the Physical Solution violates California water rights priorities because it allocates portions of the NSY to the public water suppliers while denying Tapia his claimed allocation of that NSY; (2) the Physical Solution is inequitable because overlying owners with demonstrable existing pumping were allocated proportionate shares of the remaining NSY while Tapia, despite similarly showing existing pumping, did not receive a proportionate share; and (3) the Physical Solution violates the constitutional requirement that available water be applied to reasonable and beneficial uses. We conclude substantial evidence supports the judgment as to Tapia, and that the Physical Solution comports with California law governing water priorities and the constitutional "reasonable and beneficial use" requirement. Accordingly, we will affirm the judgment as to Tapia.

I

FACTUAL AND PROCEDURAL HISTORY

A. Factual Setting

The AVAA encompasses a vast desert area of over a thousand square miles. As of 2005, it was home to over 450,000 people, with substantial projected population growth in the future. It is also home to Edwards Air Force Base, making the United States the AVAA's largest single landowner. Its regional economy, while historically rooted in

agricultural operations, has been shifting to include increased residential communities, as well as industrial and mining operations.

The principal source of water supporting all of these uses is the aquifer underlying the AVAA. The aquifer underlying the AVAA was in a state of chronic “overdraft,” meaning that extractions from the aquifer have exceeded the amount of water replenishing that aquifer by significant margins. It had been in overdraft for decades before the current litigation commenced in 1999. The overall water levels within the AVAA basin were declining, and declining water levels have caused significant long-term damage, including subsidence and lost aquifer storage capacity. The estimated average annual safe yield from all sources of recharge (natural sources such as precipitation, external sources such as imported water, and return flows) was 110,000 afy for the AVAA basin, but the numerous parties who pumped water from that basin were annually extracting an estimated 130,000 to 150,000 afy.

B. The Competing Water Use Claimants

1. The Public Water Suppliers

The PWS are a group of agencies and special districts formed to supply water to their customers. Los Angeles County Waterworks District No. 40 (District 40), the largest of these entities, is the largest urban water supplier for the region’s cities, and it pumps from the aquifer to supply water to over 200,000 people within the AVAA, primarily for residential uses. Other public water entities occupying roles similar to District 40 included Palmdale Water District, Littlerock Creek Irrigation District, Palm Ranch Irrigation District, and Quartz Hill Water District. District 40 also purchases water from the State Water Project, which is imported into the AVAA and supplements the basin’s native safe yield.

2. The Federal Government

The United States owns approximately 300,000 acres overlying the AVAA basin and operates Edwards Air Force Base on those lands. The United States claimed federal

reserved water rights of up to 11,500 afy for military purposes distinct from any correlative rights it had as an overlying landowner.

3. *The Overlying Landowners Presently Using Groundwater*

There are multiple categories of owners of overlying land who, collectively, extract the majority of the AVAA basin's water.

There are numerous individual persons or entities who own overlying land and who demonstrated the extent to which they extracted water for use on that land. This group includes corporate landowners, which extracted water to supply their farming and mining operations on their owned land, along with numerous other individual landowners (with varying levels of and purposes for water used on their land) who compete for the NSY. Tapia owns overlying land (a 137-acre property) and claimed that, during the baseline period, his well extracted an average of 534.5 afy from the aquifer to irrigate a farm on that property.

There were also numerous "mutual water companies," which were formed when the owners of overlying land incorporated the mutual water company and transferred their water rights to the company in exchange for stock and the right to receive water deliveries from the mutual water company. Another large category of overlying landowners currently pumping from the aquifer for use on their property were the members of the "Small Pumper (or Wood) Class." The class, after opt outs, ultimately represented over 3,000 privately owned parcels that fell within the class definitions. The class represented the interests of private landowners who had pumped less than 25 afy on their property during any year from 1946 through 2015. Finally, the overlying landowners currently pumping from the aquifer for use on their property included several public entities and agencies.

4. *Overlying Landowners Not Presently Using Groundwater (the "Willis Class")*

The Willis Class was formed to represent the interests of approximately 18,000 private individuals or entities (with certain exceptions) that owned overlying land in the

AVAA but who had not commenced extracting water from the aquifer during the five years prior to January 18, 2006.

II

THE LITIGATION

A. The Litigation Commences

Between late 1999 and early 2001, the first lawsuits (which ultimately evolved into the AVGC) were filed by Diamond Farming Company and Wm. Bolthouse Farms, Inc., concerning competing water rights in the aquifer. These actions, styled as quiet title actions against various public water suppliers, sought a determination of the various rights and priorities of overlying landowners and others claiming the right to extract water from the AVAA basin. In 2004, District 40 filed its actions seeking (1) a comprehensive determination of the water rights of the thousands of persons, companies, public water suppliers, public agencies and the federal government, and (2) a physical solution to alleviate the overdraft conditions in the AVAA and to protect the AVAA basin. Among other claims, District 40 sought declaratory relief that it had obtained prescriptive rights to water from the aquifer, and that the water rights held by all other defendants (except other public entities) were subordinate to the PWS's prescriptively acquired rights.

After the Judicial Council granted District 40's petition to coordinate all of the then pending actions, the court requested that District 40 refile its action as a first amended cross-complaint in the now coordinated proceedings. Accordingly, in early 2007, District 40 (along with numerous other public water suppliers joining District 40 as cross-complainants), filed a cross-complaint seeking (among other things) a determination against all overlying landowners within the AVAA that the PWS cross-complainants had obtained prescriptive rights to certain amounts of water from the aquifer, and that the water rights held by all other parties (except other public entities) were subordinate to those prescriptively acquired rights. The parties named as cross-

defendants included numerous specifically named parties, and also included Roe defendants who owned real property within the boundaries of the AVAA and extracted water or claimed some right, title, or interest to water located within the AVAA, or who asserted claims adverse to the PWS's rights and claims, but whose names were then unknown to the PWS.

Tapia was ultimately named and added as a party to the PWS cross-complaint as Roe 568 by a July 2007 amendment to the cross-complaint. In late 2010, the PWS sought entry of Tapia's default, and Tapia's default was entered in 2012.

B. Phase 1: Determining the Geographic Boundaries of AVAA

The trial court segmented the various issues raised by the actions and held trials on these issues in phased proceedings. In October 2006, the court conducted trial to establish the jurisdictional boundaries for the AVAA in order to ascertain which parties and entities with claims to the groundwater would be necessary parties in the litigation, as either overlying owners with usufructuary rights in or as appropriators producing water from the aquifer, so that a comprehensive adjudication of all claims could be made in later proceedings. The court established the "basic" jurisdictional boundaries for the AVAA as largely coextensive with the boundaries of the alluvial basin as defined by the Department of Water Resources' bulletin 118.

C. Phase 2: Determining Hydraulic Connectivity Within AVAA Boundaries

In the second phase, the court heard evidence to assess the hydrologic nature of the aquifer within the geographical boundaries set for the AVAA, and specifically evaluated whether there were any distinct subbasins within the AVAA basin that lacked any hydrologic connection such that they should be treated as separate, unconnected basins for purposes of adjudication. The court concluded there was sufficient hydraulic connectivity within the AVAA basin as a whole to obviate any claim that certain sections should be treated as separate basins.

D. The Consolidation Order

In 2009, the PWS moved to transfer and consolidate all pending actions and cross-actions. The PWS asserted that all the actions sought resolution of the same core issue: the determination of water rights in a single aquifer where similar claims for declaratory relief, resolution of overlying and prescriptive rights, and imposition of a physical solution required that a single judgment be entered as to all of the actions. The court granted the motion and entered its order consolidating all but one of the pending actions and cross-actions, noting that all claimed water rights in the aquifer were correlative to all other competing claims to water from the aquifer, a determination of any individual party's water right cannot be decided "in the abstract but must also take into consideration all other water rights within [the] single aquifer," and therefore all pending actions shared common issues of law and fact on the relative rights to draw water from the aquifer.

E. Phase 3: Determining Safe Yield and Overdraft

The Phase 3 trial litigated the safe yield for the AVAA basin and whether the area encompassed within the AVAA was in overdraft. The court found the basin was in a state of overdraft and that average extractions had significantly exceeded average recharge for decades, causing a steady lowering of water levels and accompanying subsidence since 1951. The court concluded the average total safe yield from all sources was 110,000 afy for the AVAA as a whole, while current actual extractions from the AVAA as a whole (ranging between 130,000 and 150,000 afy) exceeded average annual recharge. Accordingly, the court found (1) the AVAA was in overdraft and (2) the annual safe yield was a total of 110,000 afy.

The *total* annual safe yield ultimately set by the court in this phase as the appropriate "quantity of pumping from the basin [which] will maintain equilibrium in the aquifer" appears to have amalgamated two different components: amounts attributable to "native" water and amounts attributable to "imported" water. Various experts testified that *native* water additions (i.e., water coming into the basin from precipitation and

runoff) provided new water to the AVAA basin ranging between 55,000 to 68,000 afy. When “return flows” from that native new water were calculated, the PWS contended the *native* safe yield should be set at approximately 82,300 afy for the AVAA basin as a whole. However, various entities also imported additional water into the AVAA, and when that *imported* water (along with *its* return flows) was added to the native supply, the total safe yield for the AVAA basin was determined by the court to be 110,000 afy.

F. Phase 4: Determining Actual Groundwater Production by Claimants

In the next phase, the court ultimately concluded it would limit trial to individualized determinations of how much water various claimants actually pumped from the AVAA basin during the years 2011 and 2012. Based on the stipulations and evidence presented by numerous parties about the amounts pumped during the relevant time frames, the court determined how much water the various major stakeholders actually pumped from the AVAA basin in the relevant years. The amounts actually pumped during those sample years exceeded the previously determined safe yield. The court found that, during the sampled years, the parties cumulatively pumped in excess of 120,000 afy even before consideration of the amounts pumped by the Small Pumper Class, and apparently without consideration of the amount that would be subject to any federal reserved right.

G. Phase 5: Federal Reserved Rights and Imported Water Return Flow Rights

The “Phase 5” trial bifurcated two issues (federal reserved water rights, and any claimed rights to recapture and use any return flows from water imported into the AVAA) for the next trial phase. However, during the evidentiary presentations, the parties requested a recess of pending proceedings to permit further settlement discussions. The parties then met and conducted settlement discussions and, in April 2014, the parties informed the court that the vast majority of the parties had reached a proposed global settlement of their respective groundwater claims. This proposed global settlement included agreement on the contours of a basin-wide groundwater management

plan to implement a physical solution to the AVAA basin's overdraft conditions, which included an allocation of the available native safe yield among the parties competing for that native safe yield.

The parties to the proposed settlement, recognizing that several appearing parties and nonparticipating parties had not agreed to the settlement, proposed a case management schedule for resolving all remaining unsettled claims and to approve the proposed settlement. Shortly thereafter, Tapia sought and obtained an order setting aside his default and permitting him to file an answer to the public water suppliers' cross-complaint.

H. The Final Phase: Trial on the Unresolved Claims and Proposed Physical Solution

Because several parties with potential claims to groundwater (including Tapia) had not joined in the proposed global settlement and physical solution, the court scheduled hearings for the fall of 2015 (1) to litigate the unresolved claims by parties who did not join in the settlement,² and (2) to consider whether to adopt the proposed Physical Solution. Tapia's claim was among the remaining claims to be resolved before any final judgment could be entered, and the claim required trial on whether the public water suppliers had obtained prescriptive rights as against all nonsettling parties (including

²In the spring of 2015, the settling parties and a number of the nonsettling parties, including Tapia, agreed on a process by which any nonsettling parties would "prove up" their claims to a portion of the NSY. The parties ultimately participating in this prove-up process submitted briefs and supporting evidence to demonstrate the basis for their claim to an allocation of production rights from the NSY. For example, a mobilehome park submitted evidence (based on well logs, meter readings and annual reports to the State Water Resources Board) that their average annual production for the sample period was approximately 148 afy. Based on that evidence, the court ultimately found the mobilehome park had demonstrated the extent to which it reasonably and beneficially used water and granted the mobilehome park a production right of 64 afy. The court similarly found other of these claimants had shown through this prove-up process that they (1) owned overlying land, (2) had demonstrated the amounts of water they pumped for reasonable and beneficial uses on their land, and (3) were entitled to certain "production rights" under the Physical Solution.

Tapia), and whether Tapia and any other nonsettling party had established the amounts of water they pumped for reasonable and beneficial uses for their overlying property.

1. Evidence on Tapia's Water Usage

Tapia asserted during the prove-up proceedings he was entitled to production rights from the native safe yield of 534.5 afy because that was the amount he averaged during the 2011 and 2012 “baseline” years for use on his overlying property. At trial, Tapia testified he grew corn and pumpkins on roughly 100 acres of his Rosamond farm during 2011 and 2012, which he irrigated with pumped water using a sprinkler system. He had used imported water (purchased from the Antelope Valley—East Kern Water Agency) prior to 2009, but thereafter installed a pump that began operating in 2009. Tapia estimated his water usage for 2011 and 2012 by extrapolation from his electrical bills from 2011 and 2012. Tapia cited to a “well test,” which showed it required 581 kilowatt hours to produce one acre-foot of water from his well. He also submitted his electrical bills from Southern California Edison for the years 2011 and 2012 showing total electrical consumption for those years, from which he extrapolated he had used 517.4 acre-feet in 2011 and 551.6 acre-feet in 2012.

However, at trial, Tapia did not testify as to what portion of the water he pumped during the baseline years was used to irrigate his owned lands, and admitted that some of the water he pumped was used to irrigate adjoining land. He also admitted he did not submit records from the water meter on his well to support his claimed amounts. Instead, he relied solely on electricity billings to estimate how much water he pumped for those years, but the evidence showed the electrical meter was not a dedicated meter solely for the well, but instead was *also* measuring electricity he consumed for uses on his farm *other* than for operating the well.

The court also heard expert testimony from Robert Beeby, an agricultural engineer with expertise in “crop duties.” A “crop duty” is the amount of water required to produce a particular crop under prevailing climate and other conditions (wind, temperature, soil

conditions, etc.) and the requisite growing season. Beeby explained some crops, such as alfalfa, have a higher crop duty (i.e., require more water per acre farmed) than other crops such as carrots or onions.

Beeby analyzed Tapia's claimed water use and opined it was "overstated" and "far in excess of what they can use based on the crops they reportedly grew." Beeby's opinions were based on (1) his knowledge of crop duties for the sweet corn and pumpkins that Tapia said he grew on the farmed acres, (2) his review of satellite imaging showing what portions of Tapia's farm were actually being irrigated during certain years, and (3) his review of Tapia's pesticide permit applications showing substantially less acreage was being farmed by Tapia.

2. Evidence on the PWS Prescriptive Rights

The PWS introduced extensive evidence supporting their claim to prescriptively acquired water rights. The PWS submitted records showing historical pumping and water use during the time the aquifer was in a state of chronic overdraft, along with extensive testimony on the decades-long public notoriety of the overdraft conditions and their negative impacts on the area. The court ultimately found in favor of the PWS's prescriptive claims because the evidence showed their adverse use was continuous, open and notorious, and under claim of right.

3. Evidence on the Physical Solution

The court also heard evidence from numerous experts concerning the efficacy of the proposed Physical Solution. Dr. Dennis Williams, an expert with extensive experience with groundwater hydrology, opined the proposed Physical Solution would bring the AVAA basin back into balance because of its component parts: the requirement that existing users substantially reduce (or "rampdown") their water consumption during the rampdown period, the importation of supplemental water, and the management and monitoring provisions of the newly created watermaster for the AVAA. Charles Binder, a civil engineer who acted as a watermaster for another watershed, similarly testified the

provisions of the judgment and proposed Physical Solution would bring the AVAA basin back into hydrologic balance.

Two other experts opined the parties who were presently using water, and who had allocations of portions of the NSY under the proposed Physical Solution, were reasonably using the water they extracted and devoting it to beneficial purposes. Beeby prepared a detailed spreadsheet for over 100 water users listing their pre-rampdown average yearly pumping, the range of acres to which the water was applied, and identifying the claimed beneficial use for that water: irrigation, agriculture, municipal/industrial, domestic, reclamation, and wildlife habitat. He opined the historical amounts pumped by most overlying landowners did not appear to exceed the reasonable crop duties or other applied duties for the type and extent of the listed uses. He also opined that, once water usage was “ramped down” to the final levels of overlying production rights assigned to these landowners under the Physical Solution, the overlayers would have to alter their farming practices (either by reducing the acreage farmed or switching to crops with a lower crop duty) or import more water, because their ramped-down usage levels would be insufficient to continue farming their entire acreage with crops they historically produced. A second expert also reviewed the materials documenting the amounts of water historically used by the various parties and types of uses to which they devoted that water, and compared their historical use to the post-rampdown production rights under the proposed Physical Solution. He also developed a list of the categories of beneficial uses recognized under applicable California regulatory law and compared that list to the common uses of water within the AVAA. Based on that comparison, the expert opined the historical uses by the parties to the Physical Solution were recognized beneficial uses under applicable California law, and that the amount of water used for those beneficial purposes fell within the appropriate parameters.

I. The Final Judgment and Adoption of the Physical Solution

The court's final judgment, which incorporated determinations from prior phases, found the collective demands by those holding water rights in the AVAA basin exceeded the available safe yield for the basin, and that a comprehensive adjudication of all of the water rights within the AVAA basin and a water resource management plan were required to prevent further depletion of and damage to the AVAA basin. The court found the United States had produced substantial evidence establishing its federal reserved water right, and that the PWS had produced substantial evidence showing they had acquired a prescriptive right to pump approximately 32,000 afy as against those parties who had not joined in the stipulated judgment, including Tapia.

The court further found the Physical Solution properly allocated production rights from the NSY to various overlying landowners and public overlies because those receiving production rights had established (1) they possessed overlying rights to the basin's NSY by producing evidence of their ownership of overlying lands and the amounts of the basin groundwater they actually used, (2) the water they had used were reasonable and beneficial uses of such water, (3) the total amounts they had historically used exceeded the total NSY, and (4) the amounts they were allocated under the Physical Solution represented a severe reduction of their historical reasonable and beneficial uses and would be applied reasonably and beneficially.

However, the court found Tapia had not proved his groundwater use because the evidence and testimony presented by Tapia was not credible, and accordingly, "the Court cannot make a finding as to what amount of water was used on the Tapia Parties' land for reasonable and beneficial use. Therefore, the Tapia parties failed to establish rights to groundwater pumping based on the evidence and there is no statutory or equitable basis to give them an allocation of water under the physical solution. The Tapia Parties will be subject to the provisions of the Physical Solution."

The court found that, because the NSY was well below the amounts used for reasonable and beneficial purposes by those with overlying, prescriptive or reserved

rights, it was necessary to allocate and limit production in the NSY among these rights holders to protect the basin for existing and future users. The court concluded the evidence presented during Phases 4 and 6 supported the conclusion that the Physical Solution, which required rights holders to severely reduce the amount of water they used and created an overarching water management plan for the basin, fairly allocated the available water supplies and made the maximum reasonable and beneficial use of the NSY in a manner that would protect the AVAA basin for existing and future users while preserving the ability of existing rights holders to continue using the available NSY.

The Physical Solution allocated annual overlying production rights in the NSY among the United States, the competing overlying landholders currently extracting water, and the PWS.³ The Physical Solution did not allocate any specific amount of the NSY to Tapia. Instead, it specified any future pumping by Tapia would be governed by the terms of the Physical Solution.

The court issued its judgment and adopted the Physical Solution, and issued a statement of decision explaining the basis for its judgment and Physical Solution. Tapia timely appealed.

III

SUMMARY OF CONTENTIONS ON APPEAL

Tapia appears to raise three claims of error. First, Tapia contends the Physical Solution violates California water law principles because it (1) transgressed California's established water rights priorities by assigning production rights to lower priority

³For existing overlying rights holders who currently produced water from the aquifer, the judgment listed their pre-rampdown production and the production right assigned to them (both in afy and as a percentage of the production from the adjusted native safe yield). Under the Physical Solution, the existing producers were subject to the rampdown provisions, which created a seven-year period in which these producers were required to reduce their water extractions from their pre-rampdown production to their assigned production right. During the first two years, these producers could extract up to their pre-rampdown production without paying any replacement assessment, and thereafter were required to reduce their production (in equal increments) over the next five years to reduce usage to their assigned production right, and any water extractions above those limits would be subject to a replacement assessment.

claimants (the PWS) while denying production rights to Tapia as a higher priority claimant, and (2) it permanently eliminated Tapia’s vested rights to future uses of the NSY. Second, Tapia argues the Physical Solution violates a cardinal constitutional requirement—that water be put to reasonable and beneficial uses to the fullest extent possible—because various elements of the Physical Solution or judgment are incompatible with that requirement. Finally, Tapia asserts it was error to deny him the right to produce 534.5 afy of water because the court erroneously deemed his evidence insufficient to show the extent and reasonableness of his water use.

IV

OVERVIEW OF APPLICABLE CALIFORNIA LAW

A. Sources of Water Rights

California has been described as having a “dual system of water rights” that recognizes two principal sources by which water rights in surface waters can be acquired: by “riparian rights” holders who have first priority to the available water for riparian uses, or by “appropriation” of water for nonriparian uses when there is water in surplus beyond that used by first priority users. (See generally *Santa Barbara Channelkeeper v. City of San Buenaventura* (2018) 19 Cal.App.5th 1176, 1183.)

“Similar principles govern rights to water in an underground basin. First priority goes to the landowner whose property overlies the groundwater. These ‘overlying rights’ are analogous to riparian rights in that they are based on ownership of adjoining land, and they confer priority. [Citation.] Surplus groundwater also may be taken by an appropriator, and priority among ‘appropriative rights’ holders generally follows the familiar principle that “‘the one first in time is the first in right.’” ([*Barstow, supra*, 23 Cal.4th] at p. 1241.) With groundwater there is an exception, however, that gives rise to a third category of rights.⁴ Under certain circumstances, an appropriator may gain ‘prescriptive rights’ by using groundwater to

⁴While water rights in an underground basin are typically categorized as overlying, appropriative or prescriptive, an additional priority claim to such water, known as “federally reserved water rights,” can arise when the federal government had reserved land from the public domain and dedicates it for a specified purpose, like a military base. (Cf. *Cappaert v. United States* (1976) 426 U.S. 128, 138.)

which it is not legally entitled in a manner that is “actual, open and notorious, hostile and adverse to the original owner, continuous and uninterrupted for the statutory period of five years, and under claim of right.” (*Ibid.*)” (*Santa Barbara Channelkeeper v. City of San Buenaventura, supra*, at p. 1184.)

The priority rights held by overlies is a correlative interest: it is shared along with all of the other overlying landowners above the aquifer. (*Barstow, supra*, 23 Cal.4th at p. 1241.) Because it is a shared right, the interest of any specific individual overlie is cabined by the interests of all other correlative right holders: “as between the owners of land overlying strata of percolating waters, the rights of each to the water are limited, in correlation with those of others, to his “reasonable use” thereof when water is insufficient to meet the needs of all.” (*Central & West Basin Replenishment Dist. v. Southern Cal. Water Co.* (2003) 109 Cal.App.4th 891, 906.) While overlies are entitled to extract groundwater from the aquifer for the reasonable and beneficial use of their property (see *Katz v. Walkinshaw* (1903) 141 Cal. 116, 136), when the native supply “is insufficient, each is limited to his *proportionate fair share* of the total amount available based upon his reasonable need.” (*Tehachapi-Cummings, supra*, 49 Cal.App.3d at p. 1001, italics added.) This correlative overlying right, which is appurtenant to ownership of the overlying land, is superior to claims of other persons whose claim lacks equivalent legal priority. (*Barstow, supra*, at p. 1240.)

California recognizes a second type of usufructuary interest in water, described as “appropriative rights,” which is the right to take and use “surplus” water for uses outside the overlying land. An appropriative right, which “depends upon the actual taking of water” (*Barstow, supra*, 23 Cal.4th at p. 1241), applies only when there are surplus waters available by permitting a party to take “[a]ny water not needed for the reasonable beneficial use of those having prior rights [to] be appropriated on privately owned land for non-overlying use, such as devotion to public use” (*Ibid.*) “Proper overlying use, however, is paramount and the rights of an appropriator, being limited to the amount of the surplus [citation], must yield to that of the overlying owner in the event of a

shortage, *unless the appropriator has gained prescriptive rights through the [adverse, open and hostile] taking of nonsurplus waters.*” (*Barstow*, at p. 1241, italics added.)

As *Barstow* cautions, California recognizes another type of priority claim to available groundwater supplies: prescriptively acquired rights. (*City of Santa Maria v. Adam* (2012) 211 Cal.App.4th 266, 278 (*Santa Maria*).) Although an appropriator is entitled to take any surplus groundwater that the overlying landowners do not need, the appropriator is limited to taking *only* the remainder (or surplus) of the basin’s “safe yield.” (*Id.* at p. 279, citing *San Fernando, supra*, 14 Cal.3d at p. 214.) As the *Santa Maria* court explained:

“When total extractions exceed the safe yield the basin is said to be in overdraft. [Citation.] [¶] ... Prescriptive rights arise when an appropriator continues to pump water during times of overdraft. ‘An appropriative taking of water which is not surplus is wrongful and may ripen into a prescriptive right where the use is actual, open and notorious, hostile and adverse to the original owner, continuous and uninterrupted for the statutory period of five years, and under claim of right.’” (*Santa Maria, supra*, at p. 279, quoting *California Water Service Co. v. Edward Sidebotham & Son* (1964) 224 Cal.App.2d 715, 726.)

When a nonoverlier’s use of groundwater has ripened into a prescriptively acquired interest, the “[a]cquisition of [that] prescriptive right in groundwater rearranges water rights priorities among water users, elevating the right of the one acquiring it above that of an appropriator to a right equivalent in priority to that of a landowner.” (*Santa Maria*, at p. 297, citing *San Fernando, supra*, at p. 293.)

B. The “Reasonable and Beneficial Use” Overlay

An overlay to this California system for defining water rights is a key limiting principle: the rule of reasonableness. (*Santa Barbara Channelkeeper v. City of San Buenaventura, supra*, 19 Cal.App.5th at p. 1184.) A fundamental precept of California water law, embodied in article X, section 2 of the California Constitution, is “that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water

be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.” This overarching consideration applies to all water users, regardless of the source from which their rights are grounded (*Peabody v. City of Vallejo* (1935) 2 Cal.2d 351, 383), because no party has a protectable interest in the unreasonable use of water. (*Barstow, supra*, 23 Cal.4th at pp. 1241–1242.)

The rule of reasonableness means that paramount rights holders, while entitled to priority for water devoted to their reasonable and beneficial uses, may not be so profligate with their uses of available water that they deprive others of water that would otherwise be “surplus” and hence available for appropriation. As articulated by *City of Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908, 925–926:

“[I]t is now clear that an overlying owner or any other person having a legal right to surface or ground water may take only such amount as he reasonably needs for beneficial purposes. [Citations.] Public interest requires that there be the greatest number of beneficial uses which the supply can yield, and water may be appropriated for beneficial uses subject to the rights of those who have a lawful priority. [Citation.] Any water not needed for the reasonable beneficial uses of those having prior rights is excess or surplus water ... [which] water may rightfully be appropriated on privately owned land for nonoverlying uses, such as devotion to a public use or exportation beyond the basin or watershed.”

C. Principles for Court Adjudications of Water Rights Disputes

Where a dispute arises between parties who interpose competing claims to extract water from an overdrafted underground basin, the parties may submit their dispute to a court to adjudicate and impose a “physical solution” that equitably allocates the available water in accordance with California’s laws governing water rights. (*Barstow, supra*, 23 Cal.4th at p. 1233.) “The phrase ‘physical solution’ is used in water rights cases to describe an agreed-upon or judicially imposed resolution of conflicting claims in a manner that advances the constitutional rule of reasonable and beneficial use of the state’s water supply.” (*Santa Maria, supra*, 211 Cal.App.4th at p. 287.) Physical solutions are employed “to alleviate overdrafts and the consequential depletion of water

resources in a particular area” (*California American Water v. City of Seaside* (2010) 183 Cal.App.4th 471, 480) and requires the court to apply “general equitable principles to achieve practical allocation of water to competing interests so that a reasonable accommodation of demands upon a water source can be achieved.” (*Imperial Irrigation Dist. v. State Wat. Resources Control Bd.* (1990) 225 Cal.App.3d 548, 572.)

Although “a trial court may impose a physical solution to achieve a practical allocation of water to competing interests, the solution’s general purpose cannot simply ignore the priority rights of the parties asserting them. [Citation.] In ordering a physical solution, therefore, a court may neither change priorities among the water rights holders nor eliminate vested rights in applying the solution without first considering them in relation to the reasonable use doctrine.” (*Barstow, supra*, 23 Cal.4th at p. 1250.) Thus, a court may employ equitable apportionment principles to allocate the available supply among competing claimants with equivalent priorities, as long as that physical solution does not “wholly disregard[] the priorities of existing water rights in favor of equitable apportionment ... [and] adequately consider[s] and reflect[s] the priority of water rights in the basin” (*id.* at pp. 1247–1248) and does not “violate the constitutional principle that requires water be put to beneficial use to the fullest extent possible” (*id.* at p. 250).

Ultimately, “[e]ach case must turn on its own facts, and the power of the court extends to working out a fair and just solution, if one can be worked out, of those facts.” (*Rancho Santa Margarita v. Vail* (1938) 11 Cal.2d 501, 560–561.)

V

STANDARDS OF REVIEW

When a trial court exercises its equitable powers to adopt a physical solution, our review of that judgment is constrained by the deferential abuse of discretion standard of review. (*Barstow, supra*, 23 Cal.4th at p. 1256.) We must begin with the “most fundamental rule of appellate review ... that a judgment is presumed correct, all intendments and presumptions are indulged in its favor, and ambiguities are resolved in

favor of affirmance.” (*Santa Maria, supra*, 211 Cal.App.4th at p. 286 [standard of appellate review for trial court judgment adopting a physical solution following trial court’s groundwater rights determination].) When “[a] trial court exercises its equitable powers in approving a physical solution and entering the judgment, ... review of that judgment is under the abuse of discretion standard of review.” (*Hillside Memorial Park & Mortuary v. Golden State Water Co.* (2011) 205 Cal.App.4th 534, 549; accord, *Barstow, supra*, 23 Cal.4th at p. 1256 [when trial court “exercise[s] its equitable powers in approving the proposed physical solution ..., [court] properly review[s] the judgment under the abuse of discretion standard of review”].)

The familiar test for abuse of discretion is “whether the trial court exceeded the bounds of reason. When two or more inferences can reasonably be deduced from the facts, the reviewing court has no authority to substitute its decision for that of the trial court.” (*Shamblin v. Brattain* (1988) 44 Cal.3d 474, 478–479.) The court’s discretion as to equitable remedies, while not unlimited, should be granted deference when the record reflects the trial court has considered “the material facts affecting the equities between the parties.” (*Dickson, Carlson & Campillo v. Pole* (2000) 83 Cal.App.4th 436, 447.) ““The burden is on the party complaining to establish an abuse of discretion, and unless a clear case of abuse is shown and unless there has been a miscarriage of justice a reviewing court will not substitute its opinion and thereby divest the trial court of its discretionary power.”” (*Denham v. Superior Court* (1970) 2 Cal.3d 557, 566.)

Tapia appears to argue we should accord no deference to our review of the court’s adopted Physical Solution and judgment because it was premised on stipulations among various parties, and stipulated judgments present questions of law subject to de novo review. (*Crosby v. HLC Properties, Ltd.* (2014) 223 Cal.App.4th 597, 602–604; *In re Marriage of Smith* (2007) 148 Cal.App.4th 1115, 1120.) We reject that argument because the 2015 judgment, while certainly based on a “stipulation and physical solution presented as the [Proposed] Judgment and Physical Solution,” was entered only after

contested proceedings were held—at which evidence was introduced and challenges were considered—and after the court made extensive factual findings and concluded it would “adopt [the proposed Physical Solution] as the Court’s own physical solution.”

Accordingly, we will apply the ordinary abuse of discretion standard to our review of the judgment entered as the trial court’s “own physical solution.”

Some of Tapia’s claims appear to rest on express or implied challenges to the factual determinations underpinning the judgment and Physical Solution. As to those challenges, our review is constrained by the substantial evidence standard of review. (*Santa Maria, supra*, 211 Cal.App.4th at p. 286, citing *Reichardt v. Hoffman* (1997) 52 Cal.App.4th 754, 766–767 [“Where appellants challenge the sufficiency of the evidence we defer to the trial court”].)

“When a trial court’s factual determination is attacked on the ground that there is no substantial evidence to sustain it, the power of an appellate court *begins and ends* with the determination as to whether, *on the entire record*, there is substantial evidence, contradicted or uncontradicted, which will support the determination, and when two or more inferences can reasonably be deduced from the facts, a reviewing court is without power to substitute its deductions for those of the trial court. *If such substantial evidence be found, it is of no consequence that the trial court believing other evidence, or drawing other reasonable inferences, might have reached a contrary conclusion.*” (*Bowers v. Bernards* (1984) 150 Cal.App.3d 870, 873–874.)

VI

ANALYSIS

A. The Physical Solution’s Allocation of the NSY Does Not Violate California’s Water Priorities

Tapia contends the Physical Solution violates California’s established water rights priorities to water in a groundwater basin because the allocation of the available NSY⁵ offended two principles: (1) it allocated production rights to the PWS despite the PWS holding a lower priority than Tapia and (2) it allocated production rights in the NSY to

⁵The NSY was 82,300 afy for the AVAA basin as a whole, but after deducting the United States’ allotted federal reserved rights, the remaining available NSY was 74,700 afy.

other overlying landowners while depriving Tapia of any equivalent production right in disregard of Tapia’s correlative rights with other overlies.

1. The Allocations to the PWS Accords with California Law

Tapia correctly notes overlying landowners have rights to a basin’s groundwater that are “superior to that of other persons who lack legal priority” (*Barstow, supra*, 23 Cal.4th at p. 1240), and that such overlying rights have priority over *appropriators* when there is no surplus available for an appropriator to draw upon. (See generally *Corona Foothill Lemon Co. v. Lillibridge* (1937) 8 Cal.2d 522, 530–531.) However, allocating part of the NSY to the PWS does not violate this precept of California’s structure for prioritizing water rights: to the extent the PWS’s uses of the groundwater had ripened into a *prescriptive* interest in the available groundwater, the PWS’s water use was transformed from an appropriative use into rights entitled to equivalent priority with the rights of overlies.⁶ (*Santa Maria, supra*, 211 Cal.App.4th at p. 297 [acquisition of a prescriptive right in groundwater “rearranges water rights priorities among water users, elevating the right of the one acquiring it above that of an appropriator to a right equivalent in priority to that of a landowner”].) Accordingly, we reject Tapia’s claim that allocating production rights to the PWS offends California’s structure for prioritizing water rights. (See, e.g., *San Fernando, supra*, 14 Cal.3d at p. 293 [where prescription established, party has “a prescriptive right against the water rights concurrently held by a

⁶This aspect of Tapia’s argument appears predicated on the claim that the PWS hold only appropriative groundwater rights, and in cases of overdraft, Tapia’s overlying rights supersede appropriative claims to groundwater. While cases such as *Corona Foothill Lemon Co. v. Lillibridge, supra*, 8 Cal.2d 522 support the general proposition that overlying rights supersede appropriative rights (*id.* at pp. 530–531), Tapia ignores that the court found the PWS had perfected certain prescriptive rights, thereby elevating the PWS’s rights to equal priority with overlying rights. Because Tapia makes no claim on appeal that the evidence is insufficient to support the court’s finding that the PWS had perfected their prescriptive rights as against Tapia, Tapia has waived any claim that the court erred in finding the PWS had obtained prescriptive rights. (*Badie v. Bank of America* (1998) 67 Cal.App.4th 779, 784–785.) Accordingly, Tapia’s legal argument falters on its false predicate—the Physical Solution did *not* allocate production rights to holders of appropriative rights, but instead allocated production rights to holders of prescriptive rights.

private defendant [and] [t]he effect of the prescriptive right would be to give to the party acquiring it and take away from the private defendant against whom it was acquired either (1) enough water to make the ratio of the prescriptive right to the remaining rights of the private defendant as favorable to the former in time of subsequent shortage as it was throughout the prescriptive period [citation] or (2) the amount of the prescriptive taking, whichever is less”]; *Santa Maria, supra*, at p. 297.)

2. *The Allocations to Correlative Rights Holders Accords with California Law*

Tapia alternatively asserts the Physical Solution violates California law regarding water rights priorities because it allocates the remaining NSY to overlying owners who are currently pumping while denying him the correlative share to which he was entitled by virtue of owning overlying land.⁷ Tapia argues this allocation violates correlative rights principles, contending these principles confer on Tapia the right to be treated *equally* with all fellow correlative rights holders based solely on his ownership of land, regardless of whether Tapia demonstrated he was currently pumping for reasonable and beneficial uses for his overlying lands.

Tapia correctly notes that, under California law, protection of an overlier’s rights include protection for prospective uses as against the claims of lower priority users (*Tulare Dist. v. Lindsay-Strathmore Dist.* (1935) 3 Cal.2d 489, 525 (*Tulare*); *Hillside Memorial Park & Mortuary v. Golden State Water Co.*, *supra*, 205 Cal.App.4th at p. 539), and that overlies have a shared or common (correlative) right among each other to extract groundwater from the aquifer for the reasonable and beneficial use of their property (see *Katz v. Walkinshaw*, *supra*, 141 Cal. at p. 136). While overlies have equal

⁷Tapia also appears to assert the judgment and Physical Solution improperly deprived him of his allocation because it rested on the erroneous disregard of his proof of the extent of his pumping for reasonable and beneficial uses. However, as we conclude below, this aspect of Tapia’s challenge fails because there was substantial evidence upon which the court could have found Tapia failed to show the extent of his pumping for reasonable and beneficial uses, and hence failed to show a basis for an allocation of production rights.

priority, such “equal right, in cases where the supply is insufficient for all, [is] to be settled by giving to each a fair and just proportion.” (*Ibid.*) Thus, where (as here) the native supply is insufficient to meet the needs of all overlies, each overliar can be “limited to his proportionate fair share of the total amount available based upon his reasonable need.” (*Tehachapi-Cummings, supra*, 49 Cal.App.3d at p. 1001.)

The case law, therefore, appears only to require that, as among correlative rights holders, the division of an inadequate supply is tested by whether such allocation is *equitable*. (*Barstow, supra*, 23 Cal.4th at p. 1249 [a trial court “within limits, ... may use its equitable powers to implement a physical solution”]; cf. *Tehachapi-Cummings, supra*, 49 Cal.App.3d at p. 1001 [correlative rights “means that each has a common right to take all that he can beneficially use on his land if the quantity is sufficient; if the quantity is insufficient, each is limited to his *proportionate fair share* of the total amount available based upon his reasonable need” (italics added)].) Thus, when crafting a physical solution for an overdrafted groundwater basin where a court must allocate a water supply that is insufficient to meet the reasonable needs of all who hold correlative rights, a court *may* employ equitable apportionment principles to allocate the available supply among competing claimants with equivalent priorities, as long as that physical solution does not “wholly disregard[] the priorities of existing water rights in favor of equitable apportionment ... [and] adequately consider[s] and reflect[s] the priority of water rights in the basin.” (*Barstow, supra*, 23 Cal.4th at pp. 1247–1248; accord, *City of Pasadena v. City of Alhambra, supra*, 33 Cal.2d at p. 926 [overlying rights are held in common and each overliar “may use only his *reasonable share* when water is insufficient to meet the needs of all” (italics added)].)

We conclude that, when apportioning water in an overdrafted basin among correlative rights holders, a court may employ equitable apportionment principles to the extent necessary to reach a practical apportionment of the available water among parties holding equivalent priorities. (Cf. *San Fernando, supra*, 14 Cal.3d at p. 265 [allocating

water based on prescriptive rights “does not necessarily result in the most equitable apportionment of water according to need. A true equitable apportionment would take into account many more factors”].) Equitable apportionment should factor in the various legal priorities accorded to the competing users, but ““if an allocation ... is to be just and equitable, strict adherence to the priority rule may not be possible. ... Apportionment calls for the exercise of an informed judgment on a consideration of many factors. Priority of appropriation is the guiding principle. But physical and climatic conditions, the consumptive use of water in the several sections of the river, the character and rate of return flows, the extent of established uses, the availability of storage water, the practical effect of wasteful uses on downstream areas, the damage to upstream areas as compared to the benefits to downstream areas if a limitation is imposed on the former—these are all relevant factors. They are merely illustrative, not an exhaustive catalogue. They indicate the nature of the problem of apportionment and the delicate adjustment of interests which must be made.”” (*Id.* at pp. 265–266, fn. 61, quoting *Nebraska v. Wyoming* (1945) 325 U.S. 589, 618.)

The *Barstow* court, although concluding a physical solution based on equitable apportionment must adequately *account* for the water rights priorities of those impacted by the apportionment, nevertheless agreed that “within limits, a trial court may use its equitable powers to implement a physical solution” (*Barstow, supra*, 23 Cal.4th at p. 1249), and “may impose a physical solution to achieve a practical allocation of water to competing interests.” (*Id.* at p. 1250.) Indeed, *Barstow* appears to uphold (at least by negative implication) the use of equitable apportionment principles when considering how to apportion water *among* correlative rights holders. (See *Barstow*, at p. 1248 [“Case law ... does not support applying an equitable apportionment to water use claims *unless all claimants have correlative rights*” (italics added)].)

Tapia appears to assert the Physical Solution’s equitable apportionment of the remaining NSY among overlies wholly disregarded his correlative rights, in violation of

Barstow's admonition, because it *extinguishes* all future access by Tapia to any part of the NSY for his future use in contravention of California law. Certainly, California seeks to protect both actual uses and prospective reasonable beneficial uses by overlies. (See generally *Hillside Memorial Park & Mortuary v. Golden State Water Co.*, *supra*, 205 Cal.App.4th at p. 539.) However, the protection of the interests of correlative rights holders who are actually using all available water for reasonable and beneficial purposes may (under appropriate circumstances) permit a court to craft a physical solution that acknowledges the rights held by overlies such as Tapia, but subordinates any future use by Tapia to his fellow correlative rights holders who (unlike Tapia) demonstrated they presently use the available supply for reasonable and beneficial purposes.

In *In re Waters of Long Valley Creek Stream System* (1979) 25 Cal.3d 339 (*Long Valley*), our Supreme Court addressed a comprehensive water rights adjudication in the same circumstances as are present here: a water source that was being completely used but had substantial unexercised claims upon it that were held by correlative rights holders. The *Long Valley* court held that prospective future uses of significant unexercised correlative water rights may be conditioned and subordinated to protect existing uses and reliance interests as part of a comprehensive water rights adjudication that allocated a limited water supply among competing claimants. (*Id.* at pp. 358–359.) In *Long Valley*, the court evaluated a riparian owner's challenge to the allocation by the State Water Resources Control Board, which allocated water to him for his ongoing irrigation of his riparian land but allocated no water for his prospective future use on his remaining undeveloped land. (*Id.* at p. 346.) The owner argued that foreclosing his future access to the water was improper because *Tulare*, *supra*, 3 Cal.2d 489, barred extinguishment of his prospective riparian right merely to ensure water would remain available for other existing interests competing for the same inadequate supply. (*Long*

Valley, supra, at pp. 353-354.) Rejecting that argument in part,⁸ the *Long Valley* court held that article X, section 2 of the California Constitution authorized the board to determine that an undemonstrated or speculative riparian claim “loses its priority with respect to all rights currently being exercised.” (*Long Valley*, at pp. 358–359.) The court further held the board could “also determine that the future riparian right shall have a lower priority than any uses of water it authorizes before the riparian in fact attempts to exercise his right.” (*Ibid.*) “In other words, while [state law does not] authoriz[e] the Board to extinguish altogether a future riparian right, the Board may make determinations as to the scope, nature and priority of the right that it deems reasonably necessary to the promotion of the state’s interest in fostering the most reasonable and beneficial use of its scarce water resources.” (*Id.* at p. 359.)

Long Valley makes clear that, when there is a comprehensive adjudication in which a court is called upon to divide and allocate a limited supply among competing equal priority users whose *demonstrated* cumulative demands exceed the capacity of that resource, California law (although precluding any solution purporting to entirely extinguish correlative rights to future uses) permits the court to determine “the scope, nature and priority of the right” as the court may “deem[] reasonably necessary to the promotion of the state’s interest in fostering the most reasonable and beneficial use of its scarce water resources.” (*Long Valley, supra*, 25 Cal.3d at p. 359.) The structure of the

⁸The board’s order in *Long Valley* purported to entirely “extinguish” any unexercised riparian rights appurtenant to the owner’s remaining lands (*Long Valley, supra*, 25 Cal.3d at p. 346), which *Long Valley* observed was a “more difficult question.” (*Id.* at p. 357.) The *Long Valley* court ultimately held there was no “persuasive argument for concluding that complete extinction of such rights is necessary to the promotion of the reasonable and beneficial use of a stream system, nor ... that the reasonable and beneficial use of the waters in the Long Valley Creek cannot be equally well promoted by placing limitations on [the owner’s] future riparian right other than complete extinction ... such as the quantification of the future right, *or assigning to it a lower priority than all present and future actual reasonable beneficial uses made prior to the riparian’s attempted use* [in the future].” (*Id.* at p. 357, italics added.) Thus, while *Long Valley* bars an adjudication that entirely extinguishes future overlying rights, it does not bar an adjudication that *preserves* those rights but *subordinates* them to present and future actual reasonable beneficial uses that arose prior to a dormant right holder’s attempt to use the supply.

judgment and Physical Solution here comports with that approach: the court found that Tapia had *not* shown the extent or reasonableness of his claimed beneficial uses, and therefore had not demonstrated any statutory or equitable basis for an allocation of the NSY under the Physical Solution, and that Tapia would be “subject to the provisions of the Physical Solution.” The judgment thus recognized Tapia’s overlying future rights but required any future exercise of that preserved right be exercised “subject to the provisions of the Physical Solution.” The Physical Solution, by allocating the remaining available NSY to holders of priority rights who demonstrated actual and reasonable beneficial uses of their correlative interests, effectively subordinated Tapia’s future exercise of his correlative rights to the *present* exercise by correlative rights holders who demonstrated their existing reasonable domestic and nondomestic uses. We conclude the Physical Solution, by preserving but subordinating Tapia’s access to the NSY, comports with California law as construed and applied in *Long Valley*.

B. The Physical Solution’s Allocation of the NSY Does Not Violate California’s Principles Promoting the Reasonable and Beneficial Use of Water

Tapia argues the Physical Solution violates a cardinal constitutional requirement—that water be put to reasonable and beneficial uses to the fullest extent possible and its waste be prevented—because various elements of the Physical Solution or judgment are incompatible with that requirement.

An overarching consideration for any water rights adjudication is that the judgment should promote California’s policy that available water be put to the maximum beneficial use possible, with waste or unreasonable use prevented, under the circumstances presented. (*Barstow, supra*, 23 Cal.4th at pp. 1241–1242.) *Barstow* explained the requirement of this constitutional imperative:

“[T]he trial court ... determine[s] whether [overlying rights holding] owners, considering all the needs of those in the particular water field, are putting the waters to any reasonable beneficial uses, giving consideration to all factors involved, including reasonable methods of use and reasonable

methods of diversion....’ (*Tulare*[, *supra*, 3 Cal.2d at pp.] 524–525) We have reiterated these principles in subsequent cases, observing that although ‘what is a reasonable use of water depends on the circumstances of each case, such an inquiry cannot be resolved *in vacuo* isolated from statewide considerations of transcendent importance. Paramount among these we see the ever increasing need for the conservation of water in this state, an inescapable reality of life quite apart from its express recognition in the 1928 amendment.’ (*Joslin v. Marin Mun. Water Dist.* (1967) 67 Cal.2d 132, 140, fn. omitted.)” (*Barstow*, at p. 1242.)

Tapia contends the Physical Solution violates these principles in several ways, including that it allocates the available NSY on a permanent basis, and it was not based on an adequate evaluation of the reasonableness of each individual’s existing use.⁹

Tapia first asserts allocating the NSY on a “permanent” basis *could* violate the reasonable and beneficial use requirement at some point in the future. Specifically, he argues a particular user who received an allocation might change the user’s current use from a currently “reasonable” use to a later “unreasonable” use, and there is no mechanism within the Physical Solution designed to detect such changed usages or to allow for modification of the allocations to prevent such unreasonable uses. Even assuming this claim is preserved,¹⁰ the courts have recognized that physical solutions are

⁹Tapia’s opening brief also asserts the reasonable and beneficial use mandate was violated because the Physical Solution (1) awarded a small water right as an incentive award to the Wood Class representative, (2) granted certain of the parties the ability to transfer and/or carryover any allocated amount, and (3) deprived Tapia of any share of the NSY based on the assumption any future pumping by him would be unreasonable. However, these assertions are interposed peremptorily, and are entirely undeveloped (by either citation to the record or by legal argument) in Tapia’s opening brief. Because these assertions are unsupported by citations either to the record or to pertinent legal authority, we do not further consider them. (*Badie v. Bank of America*, *supra*, 67 Cal.App.4th at pp. 784–785 [“When an appellant fails to raise a point, or asserts it but fails to support it with reasoned argument and citations to authority, we treat the point as waived”]; *San Diego Navy Broadway Complex Coalition v. California Coastal Com.* (2019) 40 Cal.App.5th 563, 588 [where contentions are unaccompanied by substantive arguments or citation to pertinent evidence, courts deem the arguments waived].)

¹⁰It is axiomatic that a party who fails to object below forfeits its claim of error (*K.C. Multimedia, Inc. v. Bank of America Technology & Operations, Inc.* (2009) 171 Cal.App.4th 939, 950), and Tapia has not directed our attention to that part of the record in which there was any objection below that the absence of a monitoring and adjustment system rendered the Physical Solution incompatible with California’s reasonable and beneficial use requirement,

designed “to achieve a *practical* allocation of water to competing interests” (*Barstow*, *supra*, 23 Cal.4th at p. 1250, italics added; accord, *Imperial Irrigation Dist. v. State Wat. Resources Control Bd.*, *supra*, 225 Cal.App.3d at p. 572), and Tapia’s implied suggestion that allocations may not have permanence but must instead be malleable appears inconsistent with achieving a “practical” allocation of water among competing interests. (*Ibid.*) Indeed, other courts have implicitly concluded physical solutions may incorporate “permanent” allocations.¹¹ (See generally *Long Valley*, *supra*, 25 Cal.3d 339; *In re Water of Hallett Creek Stream System* (1988) 44 Cal.3d 448; *City of Pasadena v. City of Alhambra*, *supra*, 33 Cal.2d 908.) Moreover, Tapia’s suggestion the Physical Solution violates the reasonable and beneficial use mandate because the court is powerless to modify allocations to prevent subsequent unreasonable uses ignores section 6.5 of the Physical Solution. That section specifies the court has reserved “full jurisdiction ... for the purpose of enabling the Court, upon a motion of a Party or Parties ... to make such further or supplemental order or directions as may be necessary or appropriate to interpret, enforce, administer or carry out this Judgment *and to provide for such other matters as are not contemplated by this Judgment and which might occur in the future, and which if not provided for would defeat the purpose of this Judgment.*” (Italics added.) The declared purposes of the judgment and Physical Solution are to “further[] ... the State Constitution mandate and the State water policy” and to “establish[] a legal and

which permits us to deem the argument forfeited. (*In re S.C.* (2006) 138 Cal.App.4th 396, 406–407 [“When an appellant’s brief makes no reference to the pages of the record where a point can be found, an appellate court need not search through the record in an effort to discover the point purportedly made. [Citations.] We can simply deem the contention to lack foundation and, thus, to be forfeited”].) While the absence of timely objection below would ordinarily entirely bar Tapia from raising this claim for the first time on appeal (*Save Our Heritage Organisation v. City of San Diego* (2015) 237 Cal.App.4th 163, 181), we nevertheless evaluate this claim.

¹¹Tapia’s contrary suggestion—that allocations must be subject to revisitation and relitigation at unspecified periodic intervals—is unsupported by any relevant legal authority. Although Tapia cites *Joslin v. Marin Mun. Water Dist.*, *supra*, 67 Cal.2d at page 143 for the proposition that “‘reasonable and beneficial use’ determinations must constantly be reevaluated,” *Joslin* did not address the requirements of a valid physical solution, nor does it contain language suggesting a court must constantly revisit water rights adjudications.

practical means for making the maximum reasonable and beneficial use of the waters of the Basin ... in order to meet the reasonable and beneficial use requirements of water users in the Basin” (Physical Solution § 7.1), and to “provide flexibility and adaptability to allow the Court to use existing and future technological, social, institutional, and economic options in order to maximize reasonable and beneficial water use in the Basin” (Physical Solution § 7.2). Because these declared purposes include “maximiz[ing] reasonable and beneficial water use,” and the court retained jurisdiction to address matters that “might occur in the future and which if not provided for would defeat *the purpose* of this Judgment” (italics added), there is adequate protection against potential future uses that might transgress the reasonable and beneficial use mandates.¹²

Tapia also asserts the court adopted the Physical Solution without an “adequate” examination of whether the allotted production rights were being devoted to “reasonable and beneficial” purposes. (*Tulare, supra*, 3 Cal.2d at p. 535.) We disagree. The court heard extensive evidence from two experts, Robert Beeby and Robert Wagner, who opined the parties who were presently using water (and who received allocated production rights) *were* reasonably using the amounts of water they extracted and were devoting it to beneficial purposes.¹³ Tapia does not appear to assert the inquiry was

¹²For these reasons, we also reject Tapia’s argument that *Santa Maria, supra*, 211 Cal.App.4th 266 undercuts the validity of the Physical Solution adopted here. *Santa Maria* stated: “[I]f a physical solution be ascertainable, the court has the power to make and should make reasonable regulations for the use of the water by the respective parties, provided they be adequate to protect the one having the paramount right in the substantial enjoyment thereof and to prevent its ultimate destruction, and in this connection the court has the power to and *should reserve unto itself the right to change and modify its orders and decree as occasion may demand*, either on its own motion or on motion of any party.’ ([*Peabody v. City of Vallejo, supra*, 2 Cal.2d] at pp. 383–384.)” (*Id.* at p. 288, italics added.) That is precisely the ability reserved by the Physical Solution as described above.

¹³Beeby’s testimony was supported by detailed spreadsheets, which used the data drawn from the evidence submitted during the Phase 4 trial, identifying numerous users’ pre-rampdown average yearly pumping, the acres to which such water was applied, and identifying the beneficial uses to which such water was devoted. This data provided the basis for his conclusion that, with limited exceptions, the amounts drawn were being reasonably used for beneficial

inadequate as to *other* landowners, but instead asserts the inquiry was inadequate *as to Tapia* because he *also* presented evidence of the amounts he used and the purposes for such use that the trial court erroneously rejected. As we conclude below, we do not review this aspect of Tapia’s claim de novo but must instead affirm the finding if there is substantial evidence to support the ruling as to Tapia. Because we conclude the court’s inquiry into the reasonable and beneficial uses of the water by those receiving production rights was adequate, and the evidence supports the trial court’s findings thereon, we reject Tapia’s argument that the court inadequately assessed whether the Physical Solution satisfied the reasonable and beneficial use requirement.

C. Substantial Evidence Supports the Judgment as to Tapia

Tapia argues the trial court erred in denying him production rights to “continue to use water at their current levels” (capitalization omitted) because he established—through his testimony as well as two declarations allegedly admitted at trial—his baseline groundwater use and the reasonable and beneficial use for that water.¹⁴ Tapia, although recognizing a trial court may fashion a remedy through a Physical Solution to preserve a water basin, argues it may “neither change priorities among the water rights holder nor eliminate vested rights in applying the solution without first considering them in relation to the reasonable use doctrine” (*Barstow, supra*, 23 Cal.4th at p. 1250), and asserts the trial court’s Physical Solution violated *Barstow*’s equitable apportionment mandate by eliminating Tapia’s vested rights without considering the evidence he presented at trial.

purposes. Wagner also reviewed the materials documenting the amounts of water historically used by the various parties and the types of uses to which they devoted that water, and opined the parties receiving production rights under the Physical Solution had historically applied their water to beneficial uses in amounts that were appropriate for such beneficial purposes.

¹⁴The evidence established, and on appeal Tapia does not claim to the contrary, that the PWS had obtained prescriptive rights as against Tapia. Instead, Tapia also appears to assert on appeal the Physical Solution unreasonably burdens Tapia, in violation of *Barstow, supra*, 23 Cal.4th 1224, by stripping him of all economic benefits of the land. While the Physical Solution certainly limits Tapia’s use of free groundwater, Tapia apparently farmed the property using imported water through at least 2009, which belies his appellate claim that the limits imposed on Tapia deprived him of *any* economically viable use of his farm.

The record is clear that the trial court carefully listened to Tapia’s evidence¹⁵ (asserting he had used an average of 534.5 afy during the “baseline” period for use on his overlying property), but ultimately rejected Tapia’s evidence as lacking credibility. Our role on appeal is not to determine whether Tapia presented sufficient evidence that *could* have supported a contrary finding, but whether there is substantial evidence to support the trial court’s finding that Tapia “failed to prove their groundwater use.” “As the trier of fact, the trial court is the sole judge of the credibility and weight of the evidence; we do not judge credibility on appeal.” (*In re Marriage of Brewster & Clevenger* (2020) 45 Cal.App.5th 481, 500.) Instead, we examine only whether there was substantial evidence to support the trial court’s finding that Tapia’s claimed use of 534.5 afy of water lacked credibility.¹⁶ (See *Bowers v. Bernards*, *supra*, 150 Cal.App.3d at pp. 873–874 [*“If such substantial evidence be found, it is of no consequence that the trial court believing other evidence, or drawing other reasonable inferences, might have reached a contrary conclusion”*].)

Here, Tapia’s claimed use of an average of 534.5 afy to irrigate his farmland for the production of sweet corn and pumpkins was rebutted by numerous aspects of the evidence. Tapia estimated his water use based on his total electrical bills for the baseline period, but he admitted (and the evidence showed) that the electrical bills upon which this extrapolation was based measured electrical use for *other* applications (not merely the

¹⁵The record shows the trial court interposed an occasional question to Tapia to help clarify his testimony, and also asked its own additional questions before Tapia finished his testimony.

¹⁶We note Tapia’s opening brief cites only to his own evidence and does not mention any evidence or testimony contradicting his testimony. “An appellant challenging the sufficiency of the evidence to support the judgment must cite the evidence in the record supporting the judgment and explain why such evidence is insufficient as a matter of law.” (*Rayii v. Gatica* (2013) 218 Cal.App.4th 1402, 1408.) Failure to discuss contrary evidence waives any argument the judgment is not supported by substantial evidence. (*Ibid.*; *Mendoza v. City of West Covina* (2012) 206 Cal.App.4th 702, 713–714 [*“completely one-sided presentation of the facts”* waives the challenge to sufficiency of evidence].) Accordingly, while we could deem this claim waived, we have elected to examine this claim.

well), which rendered unreliable Tapia's sole metric for estimating water use during 2011 and 2012. Moreover, even assuming *some* portion of the electricity was measuring pumped water, Tapia admitted the well had a split in the main line that ultimately left his property and irrigated land he did not own, and he had "no idea" what part of the water pumped was used on land owned by others. There was also satellite imagery showing that (in 2012) nearly 75 percent of Tapia's farm was "fallowed" so that his claimed water use was far in excess of the level of water necessary to grow pumpkins and corn on the land actually under cultivation. Beeby also extensively testified that, based on his expertise as to the amount of water needed to cultivate pumpkins and corn, Tapia's claimed history of water consumption for farming those crops on the amount of land actually farmed was "far [in] excess of anything that did make sense."

On this record, there was ample basis for the trier of fact to conclude Tapia's claimed water use was not credible. Accordingly, we conclude Tapia has not demonstrated the evidence was insufficient to support the judgment as to Tapia.

We conclude substantial evidence supports the judgment as to Tapia, and the Physical Solution is consistent with California law governing water priorities and the constitutional reasonable and beneficial use requirement.

DISPOSITION

The judgment is affirmed as to Tapia. Each party is responsible for its costs on appeal.

PEÑA, Acting P.J.

WE CONCUR:

SMITH, J.

SNAUFFER, J.

CERTIFIED FOR PUBLICATION

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIFTH APPELLATE DISTRICT

ANTELOPE VALLEY GROUNDWATER CASES*

F082492

LOS ANGELES COUNTY WATERWORKS
DISTRICT NO. 40 et al.,

(JCCP No. 4408)

Cross-complainants and Respondents,

v.

CHARLES TAPIA, Individually and as Trustee,
etc., et al.,

Cross-defendants and Appellants;

ANTELOPE VALLEY–EAST KERN WATER
AGENCY,

Cross-defendant, Cross-complainant and
Respondent;

**Los Angeles County Waterworks District No. 40 v. Diamond Farming Co.* (Super. Ct. Los Angeles County, No. BC325201); *Los Angeles County Waterworks District No. 40 v. Diamond Farming Co.* (Super. Ct. Kern County, No. S-1500-CV254348); *Wm. Bolthouse Farms, Inc. v. City of Lancaster* (Super. Ct. Riverside County, No. RIC353840); *Diamond Farming Co. v. City of Lancaster* (Super. Ct. Riverside County, No. RIC344436); *Diamond Farming Co. v. Palmdale Water Dist.* (Super. Ct. Riverside County, No. RIC344668); *Willis v. Los Angeles County Waterworks District No. 40* (Super. Ct. Los Angeles County, No. BC364553); *Wood v. Los Angeles County Waterworks District No. 40* (Super. Ct. Los Angeles County, No. BC391869).

U.S. BORAX INC. et al.,

Cross-defendants and Respondents.

As the nonpublished opinion filed on March 16, 2021, in the above matter meets the standards for publication specified in the California Rules of Court, rule 8.1105(c), it is ordered that the opinion be certified for publication in the Official Reports.

PEÑA, Acting P.J.

WE CONCUR:

SMITH, J.

SNAUFFER, J.